Opposition to draft permit PAS2D702BALL

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Attn: Ryan Hancharick
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U.S. EPA Region 3

According to your website, "The mission of EPA is to protect human health and the environment." The mission is clear and unambiguous, and further backed by seven key points of how EPA hopes to achieve this goal. And yet, when it came to approving the Sedat #3A Class II-D waste disposal well (PAS2D701 BALL), EPA Region 3 officials systematically worked against each and every one of these guiding principles, failing the neighbors of the site by turning their relatively clean environment into yet another contamination zone. And now, with the issuance of the draft approval for the Sedat 4A Class II-D well (PAS2D702BALL), your agency is on the precipice of doubling down on all of these mistakes.

In this letter, we will discuss these failures point by point. Each one begins, "EPA works to ensure that:"

- "Americans have clean air, land and water."

In your 2017 public hearing about Sedat #3A, EPA made it clear that they were not going to consider harm to air or land, only water issues that might run afoul of the 1974 Safe Drinking Water Act. Therefore, residents who have complained of chemical odors from the tank battery on the site have no recourse with EPA. Residents who have complained of diesel pollution from the constant procession of waste haulers have no recourse with EPA. Residents who have complained of physical damage to their property from activities on site have no recourse with EPA.

But as it turns out, EPA has shown that they are uninterested in protecting water supplies as well. At least two different residences have complained about polluted water supplies after less than 18 months of operation. None of this should be surprising to the EPA. In the 2017 hearing, residents and scientists brought this to EPA's attention, including evidence of industry assessments that the region just isn't suitable for underground injection. If we are being candid, nothing has changed with the friable sedimentary strata since that determination was made. The only thing that has changed is that the industry produces many times more waste fluid than ever before, which frankly seems to be more of a concern to EPA than residents impacted by Sedat 3A. EPA has ignored this situation and opted to issue Sedat 4A a draft permit anyway.

- National efforts to reduce environmental risks are based on the best available scientific information.

I have yet to see scientific information that suggests that the best way to dispose of flowback and produced water is to inject them into shallow wells directly beneath people's homes. I do have some sympathy for the Agency, which is required to assess the safest manner of dealing with this waste stream when no safe manner exists. Wherever the site of injection occurs, there is the risk of contamination, induced seismicity, and repressurizing abandoned wells, among many concerns. So why does EPA think that this is appropriate to pump beneath homes in Plum Borough?

- Federal laws protecting human health and the environment are administered and enforced fairly, effectively and as Congress intended.

According to EPA's website, "UIC regulations mandate the consideration of a variety of measures to assure that injection activities will not endanger underground sources of drinking water." This is an unambiguous directive. Approving the injection of harmful oil and gas waste fluids into shallow wells beneath the homes of residents that rely on groundwater sources for domestic use is similarly an unambiguous failing of the law, as intended by Congress. Further, the region's long history of coal mining, conventional oil and gas drilling, and water well drilling through multiple layers of crumbling sedimentary rocks makes it clear that any insistence that the Murrysville Sand injection formation is sealed off from the drinking water aquifers is fictitious at best. Residents in the area know better, as should officials at EPA.

- Environmental stewardship is integral to U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade, and these factors are similarly considered in establishing environmental policy;

Merriam-Webster defines stewardship as, "the conducting, supervising, or managing of something, especially the careful and responsible management of something entrusted to one's care." EPA acknowledges that it is its job to provide environmental stewardship over a variety of industries, and this list includes the disposal of oil and gas waste fluids. Disposal at the adjacent Sedat 3A site has already caused numerous problems in a short period of time. Two different residences have complained of problems with their private water supplies following the beginning of operations at Sedat 3A . Another family is no longer able to enjoy time outdoors in their yard when noxious fumes from the tank battery are blown in their direction. Approving a decades-old two-casing borehole for high pressure injections proved to be as bad of an idea as it sounds, resulting in a failed mechanical integrity test after fewer than four months of operation. Fluids that are frequently high in radioactive elements including Radium-226 and its daughter isotope, Radon-222 are pumped underneath people's houses and drinking waters. To any reasonable observer, none of this sounds like environmental stewardship to protect natural resources and human health. At the very least, an alternative site away from human receptors is necessary for these injection operations.

- All parts of society--communities, individuals, businesses, and state, local and tribal governments--have access to accurate information sufficient to effectively participate in managing human health and environmental risks.

While arguably the easiest of the seven ways that EPA strives to achieve their mission, the Agency has repeatedly failed to make providing accurate information to the community to allow for effective participation in managing health and environmental risks a priority for residents near the Sedat 3A and Sedat 4A sites.

Matters of transparency are more than just EPA guidelines – they are the law. The National Archives explains the Freedom of Information Act (FOIA) as follows:

> The Freedom of Information Act, or FOIA (5 U.S.C. 552, as amended), generally provides any person with the statutory right, enforceable in court, to obtain access to government information in executive branch agency records. This right to access is limited when such information is protected from disclosure by one of FOIA's nine statutory exemptions.

FracTracker Alliance has submitted two FOIA requests to EPA regarding Class II-D waste disposal wells in Pennsylvania, as the wells are effectively co-regulated with Pennsylvania Department of Environmental Protection (DEP). The first was a basic inventory of these wells. In theory, this should have been easy to accomplish, as the region's geographic unsuitability has resulted in very few of these wells compared to states like Oklahoma, Texas, or even Ohio. EPA eventually returned a list of 23 such sites in Pennsylvania, but the results were incredibly sloppy, to the point where it became clear that EPA had no idea what the current state of affairs were with this industry in the state. EPA was lacking five wells from DEP data, four additional wells where the API number and well name didn't match, three wells where DEP and EPA had different well types noted, two wells where EPA just couldn't find the API number, and one well that wasn't on the DEP inventory of 200,000+ wells at all. These are a lot of significant errors for an inventory of 23 wells, and points to EPA's detachment from realities on the ground

for the industry in a state where it retains regulatory primacy. A full federal review of Pennsylvania's Class II injection operations program is clearly necessary to avoid the aquifer exemption permitting and subsequent contamination catastrophes that have occured in other states like California.

The second FOIA was specific to the Sedat 3A well. This is what was requested:

> The Sedat 3A SWD well in Plum Borough, Allegheny County, PA (Region 3, UIC program, https://www.epa.gov/uic/uic-permit-pas2d701ball) had a related water supply complaint earlier this year, shortly after going into operation. Per the Pennsylvania DEP, the operator notified EPA instead of DEP. We request a copy of that correspondence, or related notes. We understand that third party names will need to be redacted.

This is not a complicated request, however EPA requested three different extensions before finally refusing the request. In the experience of our organization and others that we work closely with, EPA FOIAs are routinely denied, are of low quality, or redacted to the point of obfuscation. When the request is backed by legal representation, results are somewhat improved. However, this shows a fundamental problem with the way EPA approaches FOIAs, which are intended to give residents the opportunity to know what governmental agencies know, in this case with respect to industrial activity that could be causing harm to the environment and human health.

Lastly, we can look at the virtual public meeting regarding this draft permit issuance itself. Local stakeholders that have been in communication with EPA about these sites were not notified of the pending hearing, which allowed only 30 days' notice – an insufficient amount of time to respond to the complexity of the draft permit, including finding experts to read and assess the documents. Further, the meeting is scheduled to be held virtually only and without explanation, which conflicts with the Agency's best practice guidance. If EPA won't follow its own best practices, it can't be a surprise when polluting industries also opt not to. Requests for more time and a public meeting were refused by the agency.

- Contaminated lands and toxic sites are cleaned up by potentially responsible parties and revitalized.

By permitting the Sedat 3A site, EPA has enabled the creation of a new toxic site right next to people's homes. When EPA secretly allowed the doubling of the injected waste volume to 108,000 barrels per month, the Agency doubled down on their decision to allow contamination. With the draft permit of the adjacent Sedat 4A site, EPA has tentatively tripled down on the original bad decision. Presumably, the operator will then try to double the volume of the new site as well after a month of operation.

Of course, this is an area that was already impacted with conventional oil and gas wells and extensive coal mining. But the oil and gas waste dump is an entirely new toxic presence in the neighborhood, and EPA's blessing is contrary to the Agency's stated mission.

- Chemicals in the marketplace are reviewed for safety.

Oil and gas waste fluids contain a variety of chemicals which are harmful to human health and the environment. Some of these occur in naturally high concentrations, like bromides. Bromides could be a concern for water well owners that use shock chlorination to sterilize or "shock" their drinking water supply, because they can react to form carcinogenic trihalomethanes, byproducts of disinfection that have been known for decades. As fracking fluids are often reused at other well sites, contaminant loads become concentrated even beyond what is present in Devonian brines. In this context, technologically enhanced naturally occurring radioactive materials (TENORMs) are known to be a problem associated with these waste streams, sometimes measuring in the tens of thousands of picocuries per liter. And then there are also the chemical additives in the fracking fluids. According to self-reported industry data from FracFocus, approved substances for this fluid includes petroleum distillates, per- and polyfluoroalkyl substances (PFAS, or "forever chemicals"), acetone, benzene, formaldehyde, chlorine dioxide, to name a few of the hundreds of chemicals that are inappropriate to be injecting beneath people's

homes and sources of drinking water. And these are just the chemicals that are made publicly available, as non-disclosure of chemicals due to trade secrets is both permissible and widespread on the registry.

There are seven ways in which EPA strives to uphold its mission of protecting human health and the environment. In the case of the existing Sedat 3A well and the issuance of the draft permit for Sedat 4A in Plum Borough, Allegheny County, Pennsylvania, the Agency falls significantly short on each method. Whereas one or two shortcomings could point to a difference of perspective, failing all seven shows that the agency is failing at its mission and needs a fundamental reset in its procedures regarding how permits for these Class II-D waste disposal wells are considered.

We understand that there is enormous pressure put on the Agency to approve such wells. The oil and gas industry produces billions of gallons of liquid waste every year that ultimately needs to go somewhere. However, helping industry find a place to pollute is not the task at hand for EPA. The task is to protect human health and the environment. To achieve its mission, EPA must revoke the draft permit and deny the application for Sedat 4A, as well as re-evaluate the existing permit for Sedat 3A.

Thank you for your careful reconsideration,

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